

# Pathways to resilience in post genocide Rwanda: a resources efficacy model

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*Field researchers and practitioners in the area of post conflict mental health have moved away from an exclusive concern with trauma and damage to a resilience perspective. This new perspective focuses on how traumatised individuals and communities reconstruct their lives and institutions. This qualitative study examines resilience in post genocide Rwanda, with the aim of developing a model for understanding resilient processes in the country. The authors used a sample of 20 participants, deemed resilient, who had made a satisfactory life adjustment and did not report any symptoms of post-traumatic stress disorder. Most were less than ten years old during the genocide, and all had lost one or both parents during that period. All were members of the Association des Etudiants et Éléves Rescapés du Genocide, a student organisation that served as a new family for the participants. The interviews were analysed using a qualitative research procedure. The analysis led to a description of the course of the participants' lives during and after the genocide, and to a theoretical account of the factors that contributed to their resilience. The results suggest a 'resources-efficacy-resilience' model, in which the availability of resources creates self-efficacy that facilitates resilience, i.e. the ability overcome past trauma and create a successful life. The results suggest a structural model for programmes for assisted resilience in Rwanda and elsewhere.*

**Keywords:** genocide, qualitative research, resilience, Rwanda, trauma

## **Introduction**

The 1994 genocide in Rwanda was one of the most intensive episodes of mass violence in human history. Over the period of 100 days,

from 7 April 1994 to mid July 1994, more than one million Rwandan Tutsi and moderate Hutu were slaughtered. Many deaths involved long standing personal relationships, as victims often knew their perpetrators. People witnessed the deaths of relatives, friends, and family members. Parents were sometimes told to kill their own children, or forced to choose which child was to be killed (Prunier, 1997).

The genocide not only destroyed human lives, it also destroyed the social fabric of Rwanda—the economic and social relationships on which Rwandan society depended. Before the genocide, Rwandan people lived lives guided by cultural norms and taboos. The genocide changed this; suddenly boundaries and taboos were no longer respected and families and communities were unable to assume their customary role of protectors. According to Handicap International, an international nongovernmental organisation (INGO) working in Rwanda, *'the psychological suffering associated with the trauma was also accompanied by socioeconomic problems. As individuals could no longer count on the solidarity and mutual support mechanisms that were characteristic of the Rwandan community, they had to meet their needs alone, in extremely poor living conditions, their homes having mostly been destroyed and with no financial resources to meet basic needs such as feeding themselves'* (Handicap International, 2009). Until recently, research approaches to post conflict mental health tended to focus on vulnerability and damage. For example, Kienzler advocates research programmes to *'determine and verify the effects of violent conflicts on the mental health of those affected by focusing*

on war trauma, posttraumatic stress disorder, and other trauma related disorders' (Kienzler, 2008). In Rwanda, researchers operating from this perspective have studied the prevalence of posttraumatic stress disorder (PTSD) (Munyandamutsa, Mahoro & Ariel, 2009; Mukanoheli, 2004) or have worked on intervention strategies for managing PTSD (Favila & Fellow, 2009; Petersen-Coleman & Swaroop, 2011).

Recently, however, field researchers and practitioners are examining post conflict mental health from a resilience perspective that focuses on the way individuals and communities cope with trauma and reconstruct their lives and institutions (Friedli, 2009; Panter-Brick, 2010). Paderta and Zakwoski (2008), and Ward and Eyber (2009), have pointed out the strong protective factors within Rwandan culture that contribute to Rwanda's reconstruction. Zraly and Nyirazinyoye (2010) used ethnographic methods to show how the Rwandan virtues of *kwi-hanga* (withstanding), *kwongera kubaho* (living again), and *gukomeza ubuzima* (continued life and health) promoted resilience in a Rwandan organisation for survivors of rape.

This study continues that line of research investigating resilience in Rwanda. In particular, resilience within the context of the NGO 'Association des Etudiants et Éléves Rescapés du Génocide' (Association of Students and Pupils Survivors of the Genocide, AERG). AERG is an association of student survivors of the genocide that was created in 1996 at the National University of Rwanda. Its mission is to represent all student survivors involved in higher learning, or attending secondary schools, whose parents and/or relatives were killed during the genocide. It provides support systems (in the form of artificial families) and morale boosting activities, as well as advocates for the ongoing needs of survivors. It is represented nationally at 30 universities and institutes of higher learning and 400 secondary schools in Rwanda, with a total

countrywide membership of approximately 43,000 students. This study was carried out with the AERG branch members at the National University of Rwanda (NUR).

## **Resilience**

Within the psychosocial field, the term resilience refers to a family of related constructs (Reich, Zautra, & Hall, 2010). The narrowest definition is provided by Bonanno (2004) who defines resilience as the absence of PTSD symptoms following potentially traumatic events. This definition was not used in this study because: 1) we wanted to study positive human development following the genocide, and not to define resilience through a negative (i.e. in terms of the absence of symptoms); and 2) Bonanno states that his definition is more applicable to psychological reactions following single incident traumas, and is less applicable to psychological health after chronic stress (Bonanno & Diminich, 2013).

Therefore, the authors choose to use the definition provided by Ungar's social ecological model of resilience (Ungar, 2004, 2008, 2011). Ungar conducted an extensive review of literature on resilience from the time the construct was first introduced into the social sciences. On the basis of this extensive review, resilience was defined as follows below.

*'In the context of exposure to significant adversity, resilience is both the capacity of individuals to navigate their way to the psychological, social, cultural, and physical resources that sustain their well being, and their capacity, individually and collectively, to negotiate for these resources to be provided and experienced in culturally meaningful ways.'* (Ungar, 2011)

This definition was chosen as it is general enough to allow the study of resilience in Rwanda without having to specify, in advance, the form that Rwandan resilience

may take. Furthermore, Ungar's model is derived from Bronfenbrenner's 1979 bioecological model of individual human development, which postulates that individual human development occurs within a context of nested systems: the micro, meso, and macro systems (Bronfenbrenner, 1979). In 1994, Bronfenbrenner and Ceci (1994) extended the original model to include genetic factors. In 2011, Ungar extended Bronfenbrenner and Ceci's model to the area of resilience, developing a model that he calls *the social ecological model of resilience* (Ungar, 2011). Ungar theorised that individual development takes place within the context of multiple systems, and developed a research programme to investigate how these complex systems interact to produce resilience. Other theorists using the same framework include: Masten, Best, & Garmezy (1990); Masten (2001); Hjerdal et al. (2007); Rutter (1987; 2008); and Hermann et al. (2011).

This social ecological approach to resilience has been applied in Rwanda, for example Handicap International (2009) adopted a community mental health approach to resilience, setting up solidarity and care systems for children and adolescents experiencing psychological suffering. Similarly, Dyregrov found that social support alleviates symptoms of trauma in Rwandan children, in that there is less distress among children living within a community structure than among those without extended family or social support (Dyregrov et. al., 2000).

As a result, this research aimed at producing results that could be useful for developing programmes of 'assisted resilience' in Rwanda, defined by Ionescu (2011) and Wong (2012) as facilitating intrinsic resilience through reducing the impact of risk factors, and enhancing and increasing the availability of protective factors. Additionally, this research examines the ways AERG has assisted in increasing the resilience of participants, AERG members who are living a successful life.

## Methods

### Research design

A qualitative research methodology was chosen for this research for three reasons. First, the research is concerned with resilience within the context of Rwandan collective culture, whereas most research and theories of resilience have been conducted within the context of a Western, individualistic culture. Second, a quantitative methodology could not be used because there are no quantitative measures of resilience adapted to the Rwandan context. Third, it is important for research, policy and ethical reasons to understand and give voice to the experience of Rwandan survivors. A qualitative methodology achieves these goals.

### Participants

The study used 20 research participants, 12 females whose ages ranged from 22 to 31 years (mean age = 25.3 years) and eight males whose ages ranged from 23 to 36 years (mean age = 27.8 years). All participants had lived through the 1994 genocide, with 70% less than 10 years old during that period. Additionally, each had lost one or both parents during the genocide. All participants were students at NUR, 11 were in the fourth year, four in the third year, five in the second year, and all were member of AERG.

Three of the participants are married and have children, seven are engaged, and ten others have a boy or girl friend. Their education is supported by FARG (*Fond National d'Assistance au Rescapés du Genocide*, National Fund of Assistance of the Survivors of the Genocide) which is a government organisation supporting survivors with school fees and a monthly living allowance. Geographically, 12 of the 20 participants come from the southern province of Rwanda, four from the Western province and four from the capital, Kigali.

All participants were judged to be resilient, using the following criteria: (1) being a

genocide survivor; (2) reporting having made a satisfactory life adjustment at NUR and in their personal relationships; (3) participating in helping people during genocide commemoration week; and (4) reporting the absence of PTSD symptoms.

### **Interview procedures**

The research interviews involved a series of 15 open ended questions designed to examine participants' experiences, during the genocide and up to the present time. The first set of questions assessed experiences during the genocide, including what happened to them, how they managed to survive, and if they had any family members that survived. The next set of questions concerned the challenges they experienced after the genocide, and how they managed these challenges. A third set of questions asked the participants how they viewed their own resilience and the factors that made them resilient.

The interviews were conducted in the Rwandan language of Kinyarwanda. Prior to the interview, participants received a consent form, which informed them of the purpose of the study and that participation was voluntary. They were told that they could stop the interview at any time if they felt upset, or did not wish to continue. The interviews were individually conducted to ensure confidentiality. At the conclusion of the interviews, participants were told that they would be informed of the results of the study after the data analysis was completed.

### **Data analysis**

The interviews were tape recorded, transcribed, and then translated into English for further analysis by the first author. The data analysis used a grounded theory procedure (Glaser & Strauss, 1967; Charmaz, 2006; Strauss & Corbin, 1998), where theory is developed through coding interview data, so that it is grounded in (i.e. based on), the reported experience of research participants.

The specific procedure involved a qualitative coding method developed by Auerbach & Silverstein (2003). In the first step of the data analysis, the interviews (raw text) were read and text relevant to the participants' resilience was selected. The relevant text was then examined to find ideas expressed by two or more participants (repeating ideas). Repeating ideas were then grouped into themes that described important issues in the participants' experience. Next, similar themes were grouped together to create theoretical constructs, i.e. abstract concepts that related the participants' experience to broader psychological theory. Finally, the theoretical constructs were organised into a theoretical narrative, i.e. a description of the path of the participants' lives during and after the genocide, which included a theoretical account of the factors that contributed to their resilience.

To assure coding reliability, the preliminary analysis into themes was done by the first author, a Rwandan and a clinical psychology student at NUR. The development of theoretical constructs and the theoretical narrative were done collaboratively with the third author, a professor of psychology in the United States. They were then checked with the second author, a professor of psychology at NUR. To assure coding validity, the first author met with all participants for a discussion of the results, and whether they reflected participants' experience. All participants at this meeting agreed that the results successfully expressed their subjective experiences.

### **Results**

The results are presented in Table 1, which displays the 18 repeating ideas, eight themes and three theoretical constructs derived from the interviews. The ratio ( $x/y$ ) indicates the proportion of research participants endorsing each repeating idea, which as well as the themes, are described below. In this description, the repeating ideas are

italicised, and the participants' exact words are italicised and indicated by quotes.

### **Construct 1. Collective trauma**

**Theme 1: Violence and loss** All of the participants (20/20) stated that they had experienced violence during the genocide,

**Table 1. Repeating ideas, themes and theoretical constructs**

#### **I. Collective trauma**

Theme 1. Violence and loss

- a. Family members were killed (20/20)
- b. Running and fleeing (20/20)

Theme 2. Shattering of the assumptive world

- a. Failure of trusted institutions (11/20)
- b. Humiliation and dehumanisation (4/20)

#### **II. Context specific resources**

Theme 3. Safety

- a. Material support from FARG and AERG (20/20)
- b. Gacaca (18/20)

Theme 4. Connection and support

- a. Rwanda as a collective society (10/20)
- b. New family in AERG (20/20)
- c. Unity and reconciliation (12/20)
- d. Helping other people (7/20)

Theme 5. Negative affect regulation

- a. God's love (16/20)
- b. Forgiveness (12/20)

#### **III. Context specific self-efficacy**

Theme 6. Distancing from traumatic past

- a. Need to look forward and put the past behind (3/20)
- b. Building new future (16/20)

Theme 7. Capacity to create future

- a. Self as strong (6/20)
- b. Flexibility (12/20)

Theme 8. Hope for future

- a. Education for the future (17/20)
- b. Commitment to goal achievement (11/20)

and that *family members were killed* as a result of the genocide. One of the participants described his experience as follows: *'in my family we were five children, my father and my mother. Some of them, we don't even know where they were killed or what might have happened to them, we just lost them.'* All of the participants (20/20) described the experience of *running and fleeing* to escape the killers. One participant said: *'my both parents are dead during genocide, we were seven siblings and now only two survived. During genocide, I didn't expect to survive because of the situation I went through.'*

#### **Theme 2: Shattering of the assumptive world**

Janoff-Bulman (1992) defines the construct of the assumptive world as people's basic unquestioned and unchallenged assumptions about themselves and their world. The events of the genocide shattered the assumptions that made up the participants' assumptive world prior to the genocide. Many participants (11/20) reported the failure of people and institutions that they previously trusted, such as friends, family, neighbours, and the church, to provide safety (*failure of trusted institutions*). During the genocide, Rwandans sought out these structures believing that they would provide safety, but this was not the case. Many of the participants' families were killed in churches or at their friend's houses. One participant said *'life seemed impossible, we went to the church but killers came behind us, we thought it could be safe but it wasn't.'* Another said *'...people who killed my family were our neighbours and our so-called friends. They turned against us and started killing my family and other relatives...'* Some participants (4/20) described feelings of *humiliation and dehumanisation* resulting from how they were treated. One participant stated: *'during genocide, (we) were insulted, humiliated by perpetrators until I even thought I am not a person!'*

#### **Construct 2. Context specific resource**

**Theme 3: Safety** All of the participants (20/20) stated that *material support from FARG and AERG* enabled them to go on with their

lives despite the losses they suffered during the genocide. As one of the participants said, *'FARG is like a father to AERG, we get financial support, advice, health insurance from FARG and other necessities. All this support prevents us from regretting our dead parents who would do this for us if they were here.'* Participants reported not having to worry about their daily needs due to the material and financial support they received that helped them feel safe and hopeful about their future.

According to the official website of the Government of Rwanda, *Gacaca* is a system of local community trials for people accused of acts of genocide. It is modelled after the traditional Rwandan village justice system, in which respected members of the village community deal with local disputes. Almost all of the participants (18/20) spoke of the importance of *Gacaca* in terms of their sense of safety. One of the participants stated that *'I realised that no one is above the rule, that we have justice, that we are understood. This contributes to making me feel safe and builds my hope that such a horrible time will not happen again.'*

#### **Theme 4: Connection and support**

Historically, Rwanda was a collective society, in which cooperative activities such as farming created an atmosphere of social trust and mutual support. This atmosphere was destroyed by the genocide, and so it was an important achievement of AERG to rebuild it. The participants reported that their resilience was facilitated by the collective resources derived from AERG. Half the participants (10/20) explicitly stated the importance to them of the fact that *Rwanda is a collective society*. One said *'Rwandan culture is about helping each other, mutual support; this is a tool of strength for people who have had traumatic experiences because they are comforted by this solidarity.'* All of the participants (20/20) stated that they found *a new family in AERG*, and this new family functions as a resource for them. For example, one participant said *'as a member of AERG, we also have families, I am even a 'father' in AERG and we discuss our histories and this helps*

*us to adapt and cope with life events.'* (The speaker here is referring to the fact that in AERG there is a mother and a father, just as in biological families.) More than half of the participants (12/20), valued the government's *unity and reconciliation* policy. The unity and reconciliation that the government encouraged served as a model for AERG members working together and developing mutual understanding. For example, one participant stated that *'unity and reconciliation is a supportive policy, this helped people to reunite and work together. It also promoted forgiveness and mutual understanding.'* Some participants (7/20), reported benefiting from *helping other people*, and in turn, being helped by them. For example, one participant stated: *'when I do a favour for someone, I feel happy because I may also be in need sometime and I don't think that you will get help if you can't help others.'*

#### **Theme 5: Negative affect regulation**

The research participants found ways to deal with negative emotions. They described how church sermons taught them about God's love for them and the importance of forgiveness for resolving conflict and living in harmony. Speaking of *God's love* (16/20) one participant said *'being a Christian, reminds me that Christ is there, knows my concerns. . . and he is there to carry my problems and sadness. I believe that God loves.'* Another participant, speaking of *forgiveness* (12/20), stated *'if you do not forgive someone who apologised to you, you do not feel fine, you feel guilty.'*

#### **Construct 3. Context specific self-efficacy**

#### **Theme 6: Distancing from the traumatic past**

Although all study participants had experienced intense violence and loss, they were able to leave the past behind and look towards the future. Some of the participants (3/20) said this explicitly: *'I should not (stay) stuck in those past moments and experiences but rather look forward. I can't change anything to get the dead alive again' (a need to look forward and put the past behind)*. Many participants

(16/20), stated that they could make use of the past in *building a new future*. For example, one participant said *'the past helps me to prepare my future. What I do is not to get stuck in the past because I know it will not happen again. In addition the past doesn't build me, I look for the future because this is what I can influence.'* The Rwandan government adopted a similar theme for the 18th anniversary of the 1994 genocide: *'let's learn from our history to build a bright future.'*

**Theme 7: Capacity to create a positive future** Research participants were characterised by a remarkable belief in their capacity to create a positive future. Some (6/20) attributed this to experiencing the *self as strong*: *'in all those struggles, I felt like I will not die. . . I believe that nothing will bring me back in the past and if something happens, I can defend myself until the end.'* Others (12/20), attributed their capacity to create a positive future to their *flexibility*: *'in life we have to be flexible because you can't live on your own and often you cannot change what happened.'*

**Theme 8: Hope for the future** Despite the past and present adversity the participants experienced, they were optimistic about their future. Most (17/20), saw the importance of *education for the future*: *'education is important in everything. I learn not only knowledge but also wisdom. All my future goals can be achieved through education.'* Many (11/20), reported a *commitment to goal achievement*. One participant stated that *'I no longer feel like I am an orphan, I just share time with friends . . . I have plans, I am graduating next year and then doing a Masters, making money and having a family.'*

## Discussion

### Theoretical narrative

The aim of the present study was to understand the experience of resilient members of AERG. The data analysis developed three constructs that described their resilient trajectories, namely collective trauma, context specific resources, and context specific self-

efficacy. The following theoretical narrative summarises the results of this analysis.

The first construct, collective trauma, describes the participants' experience during the genocide. During the genocide the participants experienced violence and loss (Theme 1) that resulted in the shattering of the assumptive world (Theme 2). The terrible events that they experienced destroyed their sense of a stable, safe world that they could count on, and after the genocide ended, they were faced with the task of reconstructing their social network and their lives.

The second construct, context specific resources, describes the resources the participants made use of that allowed them to feel enough safety and support to put the traumatic past behind them and create a new life. The first of these resources was the safety (Theme 3) provided by FARG and AERG, and also the sense of justice the *Gacaca* system provided. The second of these resources was connection and support (Theme 4) provided by their new families in AERG, which built on Rwanda's strengths as a collective society. In addition, they had to cope with the negative emotional effects of their experience during the genocide. They were able to do so through negative affect regulation (Theme 5), by making use of the resources provided by religious institutions where they were members.

The term *'context specific resources'* expresses the form that the general construct of resources takes, within the context of Rwanda and AERG. Thus, the theme of safety is applicable within many contexts, but the form that safety takes in these results involves the specific Rwandan institutions of AERG, FARG, and *Gacaca*. Similarly, the form the general theme of connection and support takes involves the four ideas listed under this theme, and is also specific to the Rwandan context. In the same way, God and forgiveness are specific mechanisms used by our participants to accomplish the general process of negative affect regulation.

The third construct, context specific self-efficacy, describes in detail how the participants used resources to construct new and positive lives. They were able to achieve a distancing from the traumatic past (Theme 6), and develop a capacity to create a positive future (Theme 7), as well as hope for the future (Theme 8).

As was the case with the second construct, context specific self-efficacy describes the form that the general construct of self-efficacy takes within this research context. For example, distancing from the traumatic past is a general requirement for coping with trauma. In this study, the distancing process made use of the specifically Rwandan cultural theme of *'learning from history to build a bright future.'*

This narrative suggests a *'resources-efficacy-resilience'* model, in which the availability of resources (Hobfoll, 1989), creates self-efficacy (Benight & Bandura, 2004), which in turn facilitates resilience, i.e. the participants' ability to put the traumatic past behind them and reconstruct a viable life and world. The logic of this hypothesis is as follows.

The results, in particular Construct 1, collective trauma, show that the violence and the loss of the genocide shattered the participant's assumptive world. Resilience after the genocide required that the participant's reconstruct a viable worldview. Hobfoll's conservation of resources theory (COR) postulates that individuals *'strive to retain, protect, and build resources,'* (Hobfoll, 1989) which are defined as anything that people value including objects, conditions, personal characteristics and energies. Hobfoll also states that trauma exerts its effect by destroying the resources that people need to function effectively. These data, in particular Construct 2, context specific resources, suggests that the participants were able to overcome their trauma and reconstruct a positive world view, making use of the resources provided by AERG, namely safety, connection and support, as well as negative affect regulation.

Benight & Bandura (2004) have shown that self-efficacy, a belief that one can exert control over traumatic adversity, mediates recovery from traumatic events. The participants reported precisely such self-efficacy in constructing a new, positive future, as is illustrated by Construct 3, context specific self-efficacy. According to the resources-efficacy-resilience model, this development of self-efficacy is made possible by the availability of context specific resources.

### **Relationship to previous literature**

The resources-efficacy model of resilience is consistent with Ungar's social ecological model of resilience (Ungar, 2011). Ungar defines resilience in terms of individuals and collectives navigating their way towards and negotiating for resources necessary to their wellbeing. The model presented here expands the social ecological model in several ways. First, the model addresses a specific form of adversity, namely collective trauma. It also applies to a specific form of wellbeing, namely rebuilding a shattered assumptive world in order to create distance from a traumatic past and build a new future. Secondly, it specifies explicitly the resources that the members of AERG used in their resilient processes, namely safety, connection and support, and negative affect regulation. Thirdly, it emphasises the importance of self-efficacy in the capacity to rebuild a positive world. Finally, Ungar's model seems to assume that resources for resilience already exist in society and must be navigated towards, and negotiated for. The research presented here highlights an additional possibility: that these resources can be created by organisations that individuals themselves build, such as AERG.

### **Implications for interventions: assisted resilience in post conflict collective societies**

The resources-efficacy-resilience model suggests methods for developing programmes

of assisted resilience in Rwanda, and in other post conflict collective societies. If these results can be generalised, then programmes of assisted resilience should create conditions where individuals and communities have access to the resources described in the model. First of all, the programmes should provide safety, particularly in the form of material and economic resources. Second, the programmes should provide opportunities for individuals to create, or to enhance, the already existing organisations that allow them to connect with and support each other. And finally, the programmes should also provide resources for dealing with negative emotions, for which local religious organisations or other community groups might be enlisted.

The question is often posed of how community oriented programmes can provide resources in post conflict areas where resources are likely to be scarce. The history of AERG suggests that community programmes do not have to provide the resources for participants, but instead can help participants find or create their own resources. AERG was not created by an outside authority, but as an initiative of the students themselves. Within the process, students created new resources, or found ways to locate and make new use of existing ones.

### **Limitations**

This research is subject to five main limitations. The first concerns language: interview questions were formulated in Kinyarwanda and interviews were also conducted in Kinyarwanda. However, the interview transcripts were translated into English before being analysed. Although the first author who conducted the interviews and participated in the analysis was a native speaker of Kinyarwanda, and the second author was also a native speaker of Kinyarwanda, it is possible that the nuances of the participants' responses were lost in translation.

The second limitation has to do with culture: the themes and theoretical constructs developed are derived from Western academic psychology. It is possible that these constructs were not accurately applied to Rwandan experience. However, the first and second authors are both native Rwandans and psychologists trained in Western academic psychology, so we believe that the constructs are, in fact, relevant to Rwandan experience.

The third limitation arises from the fact that the research used a convenience sample of participants, and some of them were known to the interviewer (the first author). It is possible that this affected the participants' responses. However, there was little difference between the responses of the participants known to the interviewer and the other participants. In addition, after the results were analysed, a member check was conducted, in which the results of the analysis were discussed with the participants and all participants agreed that the results corresponded to their experience.

The fourth limitation arises from the nature of the convenience sample, which only included resilient members of AERG at the National University of Rwanda. AERG is a national organisation, involving students in secondary schools as well as students at other educational institutions. Students at NUR, having achieved scholarships, are likely to be very successful generally, and this also skewed the sample. It is also possible that AERG membership has a different effect in other samples. In addition, the effects of AERG membership on students who are not so resilient are unknown.

The fifth limitation has to do with the ability to generalise the resources-efficacy model. Our research developed the model based on members of one specific Rwandan organisation, AERG, and it describes the specific resources that made these members resilient. It is possible that members of other Rwandan organisations would use

these resources differently, or not at all. For example, our participants used the church as a means of negative affect regulation. Because of the complex role of the Catholic Church during the genocide, other Rwandans might not have found the church helpful. The same point could be made about *Gacaca* being seen as a source of safety.

### **Future research**

The above limitations suggest future research directions. The present results could be followed up using mixed methods strategies, i.e. strategies that combine both qualitative and quantitative methods (Morse & Niehaus, 2009). The first step would be to conduct a more focused qualitative study, using interview questions designed to elaborate hypotheses about resilience. These questions should explicitly ask about the constructs developed in this study. The research should also examine students at other institutions where AERG is present, and should include students who do not show so much strength in coping and recovering from trauma. In addition, some of the participants' narratives suggested posttraumatic growth, and this should also be further explored. This more detailed theory should be further tested and elaborated, using quantitative measures and a larger sample. These measures could also include open ended questionnaires and psychometrically valid scales and instruments. These quantitative results could then be analysed using structural equation modelling (Kline, 2011). In addition, it would be important to examine the applicability of the resources-efficacy model to other Rwandan organisations, and more generally to psychological recovery and resilience in other post conflict contexts. This research would enable exploration of a range of resources that could help individuals and communities recover, and the specific forms that efficacy takes within a variety of contexts.

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### **References**

- Auerbach, C. F. & Silverstein, L. B. (2003). *Qualitative Data: An Introduction to Coding and Analysis*. New York: New York University Press.
- Benight, C. & Bandura, A. (2004). Social cognitive theory of posttraumatic recovery: the role of perceived self-efficacy. *Behavior Research and Therapy*, 42, 1129-1148.
- Bonanno, G. A. (2004). Loss, Trauma, and Human Resilience: Have We Underestimated the Human Capacity to Thrive After Extremely Aversive Events? *American Psychologist*, 59, 20-28.
- Bonanno, G. A. & Diminich, E. D. (2013). Annual research review: Positive adjustment to adversity—Trajectories of minimal—impact resilience and emergent resilience. *Journal of Child Psychology and Psychiatry*, 54(4), 378-401.
- Bronfenbrenner, U. (1979). *Ecology of human development*. Cambridge, MA: Harvard University Press.
- Bronfenbrenner, U. & Ceci, S. J. (1994). Nature-nurture reconceptualized in developmental perspective: A bioecological model. *Psychological Review*, 101(4), 568-586.
- Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. Thousand Oaks, CA: Sage.
- Dyregrov, A., Gupta, L., Gjestad, R. & Mukano-heli, E. (2000). Trauma exposure and psychological reactions to genocide among Rwandan children. *Journal of Traumatic Stress*, 13(1), 3-21.
- Favila, Z. I & Fellow, L. (2009). *Global Grassroots: Treatment of Post-Traumatic Stress Disorder in Post-Genocide Rwanda*, Unpublished manuscript. Dartmouth College.

- Friedli, L. (2009). *Mental health, resilience and inequalities*. Geneva: World Health Organization.
- Glaser, B. & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago: Aldine.
- Handicap International, (2009). *Supporting persons living with trauma by rebuilding social and community links: An example of a community-based mental Health approach after the Rwandan genocide of the Tutsis*. Lyon, France.
- Herrmann, H., Stewart, E. D., Diaz-Granados, N., Berger, L. E., Jackson, B. & Yuen, T. (2011). What Is Resilience? *Canadian Journal of Psychiatry*, 56, 258-265.
- Hjemdal, O., Aune, T., Reinfjell, T., Stiles, T. C. & Friberg, O. (2007). Resilience as a predictor of depressive symptoms: A correlational study with young adolescents. *Clinical Child Psychology and Psychiatry*, 12(1), 91-104.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44, 513-524.
- Ionescu C. (2011, September). *Comment développer les interventions de résilience assistée*. Paper presented at the International Conference on Mental Health, Kigali-Rwanda.
- Janoff-Bulman, R. (1992). *Shattered assumptions: Towards a new psychology of trauma*. New York: Free Press.
- Kienzler, H. (2008). Debating war-trauma and post-traumatic stress disorder (PTSD) in an interdisciplinary arena. *Social Science & Medicine*, 67(2), 218-227.
- Kline, R. B. (2011). *Principles and practice of structural equation modelling* (3rd ed.). New York: Guilford Press.
- Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist*, 56, 227-238.
- Masten, A. S., Best, K. M. & Garmczy, N. (1990). Resilience and development: Contributions from the study of children who overcome adversity. *Development and Psychopathology*, 2, 425-444.
- Morse, J. M. & Niehaus, L. (2009). *Mixed method design: Principles and procedures*. Walnut Creek, CA: Left Coast Press.
- Mukanoheli, E., (2004). *The prevalence of trauma in Rwanda, a decade after the genocide*. Unpublished manuscript.
- Munyandamutsa N., Mahoro, P., & Ariel, E. (2009). *Prevalence of PTSD among Rwandan population: clinical aspects, drug abuse and other co-morbidity*. Unpublished manuscript.
- Paderta, A., & Zakwoski, S. (2008). *Internationalizing the Curriculum: Lessons From a Student Service-Learning Project in Kigali, Rwanda*. Unpublished manuscript. Clinical Psychology, Argosy University, Chicago
- Panter-Brick, C. (2010). Conflict, violence, and health: setting a new interdisciplinary agenda. *Social Science & Medicine*, 70(1), 1-6.
- Peterson-Coleman, M. N. & Swaroop, S. R. (2011). Complex trauma: A critical analysis of the Rwandan fight for liberation. *Journal of Pan-African Studies*, 4, 1-19.
- Prunier, G. (1997). *The Rwanda crisis: History of a genocide*. New York: Columbia University Press.
- Reich, J. W., Zautra, A. J. & Hall, J. S. (Eds.). (2010). *Handbook of adult resilience*. New York: Guilford.
- Rutter, M. (1987). Psychosocial resilience and protective mechanisms. *American Journal of Orthopsychiatry*, 57, 316-331.
- Rutter, M. (2008). Developing concepts in developmental psychopathology. In J. J. Hudziak (Ed.), *Developmental psychopathology and wellness: Genetic and environmental influences* (3–32). Washington, DC: American Psychiatric Publishing.
- Strauss, A. & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Thousand Oaks, CA: Sage.

Ungar, M. (2004). *Nurturing hidden resilience in troubled youth*. Toronto.

Ungar, M. (2008). Resilience across cultures. *British Journal of Social Work, 38*, 218-235.

Ungar, M. (2011). The social ecology of resilience: Addressing contextual and cultural ambiguity of a nascent construct. *American Journal of Orthopsychiatry, 81*(1), 1-17.

Ward, L. & Eyber, C. (2009). Resiliency of children in child-headed households in Rwanda: implications for community based psychosocial interventions. *Intervention, 7*, 17-33.

Wong, P. (2012). *The human quest for meaning: Theory, research, and applications* (2nd ed.). New York: Routledge.

Zraly, M. & Nyirazinyoye, L. (2010). Don't let the suffering make you fade away: An ethnographic study of resilience among survivors of genocide-rape in southern Rwanda. *Social Science & Medicine, 70*(10), 1656-1664.

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